

VEGETATION CONTROL METHOD AND APPARATUS

Claims of **WO9426102**

CLAIMS

1. A method of killing or controlling vegetation, characterised in that pressurised hot water is applied to the surface of vegetation at a temperature of substantially 75°C or above.
2. A method as claimed in claim 1, characterised in that the pressurised hot water is applied as one or more jets of pressurised hot water from a spray head within a shroud, said jet or jets being directed onto the foliage of the vegetation, and said shroud being in close proximity to the surface of the vegetation.
3. A method as claimed in claim 1, characterised in that the pressurised hot water is applied to the vegetation at a temperature of substantially 90°C or above.
4. A method as claimed in claim 2, characterised in that the pressurised hot water is applied to the vegetation at a temperature in the range of 100°C to 110°C.
5. A method as claimed in claim 4, characterised in that the jets comprise a mixture of hot water droplets and wet steam.
6. A method as claimed in claim 4, characterised in that the pressurised hot water is applied from an outlet positioned not more than 100 millimetres off the ground.
7. A method as claimed in claim 6, characterised in that the spray is delivered at a pump pressure in the range of 200 psi to 1,000 psi.
8. A method as claimed in claim 7, characterised in that the temperature and pressure and flow rate of the pressurised hot water are sufficiently high to kill the vegetation.
9. A method as claimed in claim 7, characterised in that the pressurised hot water is applied at a flow rate of between 4 and 40 litres/minute.
10. Apparatus for killing or controlling vegetation connectable to a water source, and having means for heating water, and means for applying it to vegetation, characterised in that there is at least one pump capable of supplying the hot water at a pump pressure of 200 psi or above and at a flow rate in excess of 4 litres/minute, and said means for heating water heats the water to a temperature of substantially 75°C or above.
11. Apparatus as claimed in claim 9, characterised in that means is arranged to maintain an outlet from which the steam or hot water is sprayed at a substantially constant spacing above the ground.
12. Apparatus as claimed in claim 9, characterised in that means is arranged to maintain an outlet from which the steam or hot water is sprayed at a substantially constant spacing from the ground by a ground contacting part adjacent the outlet with the ground.
13. Apparatus as claimed in claim 12, characterised in that the ground contacting part comprises wheel(s) or skid(s) in fixed position relative to the outlet to contact the ground and maintain an outlet at a substantially constant height above the ground.
14. Apparatus as claimed in claim 13, also characterised in that a shroud is provided about the outlet and said shroud extends towards the ground to contain the spray of steam or hot water within a defined area.
15. Apparatus as claimed in claim 14, characterised in that the outlet and ground spacing means form part of an applicator head of a hand held applicator for applying the steam or hot water to vegetation, movable manually by an operator in treating an area for weed control.

16. Apparatus as claimed in claim 14, characterised in that the outlet and the ground spacing means form part of an applicator head comprising a boom to be conveyed over ground by a vehicle, said boom including a number of said outlets along its length.

17. Apparatus as claimed in claim 15, characterised in that a water tank and heating means for heating water prior to spraying are all mounted as a single unit for mobility, with a pipe connecting same to the outlet.

18. Apparatus as claimed in claim 16, characterised in that the water supply and heating means are mounted for mobility on a vehicle.

19. Apparatus as claimed in claim 18, characterised in that the water supply and heating means are adapted to apply the steam or hot water at a temperature of substantially 90°C or above.

20. Apparatus as claimed in claim 19, characterised in that the water supply and heating means are adapted to apply the steam or hot water at a temperature in the range 100°C to 110°C.

21. Apparatus as claimed in claim 13, characterised in that the outlet is positioned less than 100 mm above the ground contacting part, and the outlet has a plurality of apertures each having a diameter in the range of 0.5 mm to 1.5 mm.

22. Apparatus as claimed in claim 21 characterised in that the pump or pumps are capable of delivering pressurised hot water at a pump pressure in the range of 200 psi to 1,000 psi.

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